

Form PTO-1449 (modified)

ATTN. DOCKET NO.  
UTSK:142/BAHSERIAL NO.  
07/953,680List of Patents and Publications  
For Applicant's Information  
Disclosure StatementAPPLICANT  
A.P. SHEPHERD et al.

(Use several sheets if necessary)

FILING DATE  
September 29, 1992GROUP  
1809

2505

## U.S. PATENT DOCUMENTS

| EXAM.<br>INIT. | REF.<br>DES. | DOCUMENT<br>NUMBER | DATE     | NAME            | CLASS | SUB<br>CLASS | FILING DATE<br>IF APPROPRIATE |
|----------------|--------------|--------------------|----------|-----------------|-------|--------------|-------------------------------|
| KH             |              | 2,878,715          | 03/24/59 | Rhees           | —     | —            |                               |
| KH             |              | 3,296,922          | 01/10/67 | Goldberg        | —     | —            |                               |
| KH             |              | 3,516,746          | 06/23/70 | Shibata et al.  | —     | —            |                               |
| KH             |              | 3,527,542          | 09/08/70 | Penhasi et al.  | —     | —            |                               |
| KH             |              | 3,638,640          | 02/01/72 | Shaw            | 356   | 41           | RECEIVED                      |
| KH             |              | 3,692,410          | 09/19/72 | Jurany et al.   | 356   | 40           | APR 23 1993                   |
| KH             |              | 3,764,267          | 10/09/73 | Farr            | —     | —            |                               |
| KH             |              | 3,799,672          | 03/26/74 | Vurek           | 356   | 39           | DO NOT 2500                   |
| KH             |              | 3,972,614          | 08/03/76 | Johansen et al. | 356   | 39X          |                               |
| KH             |              | 3,994,585          | 11/30/76 | Frey            | 356   | 40           |                               |

## FOREIGN PATENT DOCUMENTS

| EXAM.<br>INIT. | REF.<br>DES. | DOCUMENT<br>NUMBER | DATE | COUNTRY | CLASS | SUB<br>CLASS | TRANSLATION<br>YES/NO |
|----------------|--------------|--------------------|------|---------|-------|--------------|-----------------------|
|                |              |                    |      |         |       |              |                       |
|                |              |                    |      |         |       |              |                       |

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|    |   |   |
|----|---|---|
| KH | ✓ | Anderson et al., "Light-Absorbing and Scattering Properties of Non-Haemolysed Blood," <i>Phys. Med. Bio.</i> , Vol. 12, 2:173-184 (1967)  |
| KH | ✓ | Drabkin, "The Crystallagraphic and Optical Properties of the Hemoglobin of Man in Comparison with Those of Other Species," <i>Spectrophotometric Studies</i> , pp. 703-725 (April 12, 1946)                                   |
| KH | ✓ | Kiel et al., "A Microcomputer Oximeter for Whole Blood," <i>Amer. J. Physiol.</i> , pp. H722-H725 (1983)  |
| KH | ✓ | Kramer et al., "Influence of Oxygen Saturation, Erythrocyte Concentration and Optical Depth Upon the Red and Near-Infrared Light Transmittance of Whole Blood," <i>Amer. J. Physiol.</i> , Vol. 165, pp. 229-246 (April 1951) |
| KH | ✓ | Janssen, "A Study of the Absorption and Scattering Factors of Light in Whole Blood," <i>Med. Biol. Eng.</i> , Vol. 10, pp. 231-240, (1972)  |

EXAMINER

K. Hants

DATE CONSIDERED

9/3/93

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (modified)

ATTY. DOCKET NO.  
UTSK:142/BAHSERIAL NO.  
07/953,680List of Patents and Publications  
For Applicant's Information  
Disclosure StatementAPPLICANT  
A.P. Shepherd et al.

(Use several sheets if necessary)

FILING DATE  
September 29, 1992GROUP  
~~1809~~ 2505

## U.S. PATENT DOCUMENTS

| EXAM.<br>INIT. | REF.<br>DES. | DOCUMENT<br>NUMBER | DATE     | NAME              | CLASS | SUB<br>CLASS | FILING DATE<br>IF APPROPRIATE |
|----------------|--------------|--------------------|----------|-------------------|-------|--------------|-------------------------------|
| KH             |              | 4,003,662          | 01/18/77 | Retzer et al.     | 356   | 40X          |                               |
| KH             |              | 4,013,417          | 03/22/77 | Raffaele          | 356   | 40X          |                               |
| KH             |              | 4,057,394          | 11/08/77 | Genshaw           | 356   | 40X          |                               |
| KH             |              | 4,134,678          | 01/16/79 | Brown et al.      | 356   | 39           |                               |
| KH             |              | Re 30,007          | 05/22/79 | Steuer et al.     | 324   | 30           | RECEIVED                      |
| KH             |              | 4,240,749          | 12/23/80 | Retzer            | 356   | 40X          | APR 23 1993                   |
| KH             |              | 4,243,883          | 01/06/81 | Schwarzmann       | 356   | 40X          |                               |
| KH             |              | 4,301,412          | 11/17/81 | Hill et al.       | 324   | 442          | FORM 2500                     |
| KH             |              | 4,303,887          | 12/01/81 | Hill et al.       | 324   | 441          |                               |
| KH             |              | 4,308,029          | 12/29/81 | Siggaard-Andersen | 356   | 40X          |                               |

## FOREIGN PATENT DOCUMENTS

| EXAM.<br>INIT. | REF.<br>DES. | DOCUMENT<br>NUMBER | DATE | COUNTRY | CLASS | SUB<br>CLASS | TRANSLATION<br>YES/NO |
|----------------|--------------|--------------------|------|---------|-------|--------------|-----------------------|
|                |              |                    |      |         |       |              |                       |

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|    |   |   |  |  |  |  |  |
|----|---|---|--|--|--|--|--|
| KH | ✓ | Pittman, "In Vivo Photometric Analysis of Hemoglobin," <i>Annals of Biomedical Engineering</i> , Vol 14, pp. 119-137 (1986)   |  |  |  |  |  |
| KH | ✓ | Pittman et al., "A New Method for the Measurement of Percent Oxyhemoglobin," <i>Journal of Applied Physiology</i> , Vol 38, 2:315-320 (February 1975)   |  |  |  |  |  |
| KH | ✓ | Setsuo et al., "A Miniature Hybrid Reflection Type Optical Sensor for Measurement of Hemoglobin Content and Oxygen Saturation of Whole Blood," <i>IEEE Transactions on Biomedical Engineering</i> , Vol. 35, 3:187-198 (March 1988) |  |  |  |  |  |
| KA | ✓ | Singh et al., "Technical Note; Optical Method for Haemacrit Determination," <i>Med &amp; Biol. Eng. &amp; Comput.</i> , Vo. 20, pp. 527-528 (July 1982)   |  |  |  |  |  |
| XH | ✓ | Sinha et al., "Blood O <sub>2</sub> Saturation Determination in Frozen Tissue," <i>Microvascular Research</i> , 14:133-144 (1977)   |  |  |  |  |  |

EXAMINER

K. Hunt

DATE CONSIDERED

9/3/93

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (modified)

ATTY. DOCKET NO.  
UTSK:142SERIAL NO.  
07/953,680List of Patents and Publications  
For Applicant's Information  
Disclosure StatementAPPLICANT  
A.P. Shepherd et al.

(Use several sheets if necessary)

FILING DATE  
September 29, 1992GROUP  
1809

2500

## U.S. PATENT DOCUMENTS

| EXAM.<br>INIT. | REF.<br>DES. | DOCUMENT<br>NUMBER | DATE     | NAME             | CLASS | SUB<br>CLASS | FILING DATE<br>IF APPROPRIATE |
|----------------|--------------|--------------------|----------|------------------|-------|--------------|-------------------------------|
| KH             |              | 4,324,556          | 04/13/82 | Robertson et al. | 356   | 40X          |                               |
| KH             |              | 4,357,105          | 11/02/82 | Loretz           | 356   | 40           |                               |
| KH             |              | 4,444,498          | 04/24/84 | Heinemann        | 356   | 41X          |                               |
| KH             |              | 4,453,266          | 06/05/84 | Bacus            | 356   | 39X          |                               |
| KH             |              | 4,502,786          | 03/05/85 | Golias et al.    | 356   | 435          |                               |
| KH             |              | 4,565,448          | 01/21/86 | Abbott et al.    | 356   | 3            | RECEIVED                      |
| KH             |              | 4,605,305          | 08/12/86 | Lenoir et al.    | 356   | 246          | APR 23 1993                   |
| KH             |              | 4,651,741          | 03/24/87 | Passafaro        | 386   | 41X          |                               |
| KH             |              | 4,700,708          | 10/20/87 | New, Jr. et al.  | 356   | 41X          | GROUP 2500                    |
| KH             |              | 4,997,769          | 03/05/91 | Lundsgaard       | 856   | 39X          |                               |

## FOREIGN PATENT DOCUMENTS

| EXAM.<br>INIT. | REF.<br>DES. | DOCUMENT<br>NUMBER | DATE | COUNTRY | CLASS | SUB<br>CLASS | TRANSLATION<br>YES/NO |
|----------------|--------------|--------------------|------|---------|-------|--------------|-----------------------|
|                |              |                    |      |         |       |              |                       |
|                |              |                    |      |         |       |              |                       |
|                |              |                    |      |         |       |              |                       |
|                |              |                    |      |         |       |              |                       |

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|    |   |  |  |  |  |  |  |
|----|---|--|--|--|--|--|--|
| KH | ✓ | Steinke et al., "Role of Light Scattering in Whole Blood Oximetry," IEEE Transactions on Biomedical Engineering, Vol. BME-33, 3:294-301 (March 1986) |  |  |  |  |  |
| KH | ✓ | Brochure Entitled, "OSM3 Hemoximeter," Radiometer; Copenhagen (1988)   |  |  |  |  |  |
|    |   |  |  |  |  |  |  |

EXAMINER

K. Hunt

DATE CONSIDERED

9/3/93

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.